

APPENDIX I
(MARKED-UP VERSION OF AMENDED CLAIMS)

7. (Twice Amended) A semiconductor device comprising:
- a first semiconductor chip;
- a second semiconductor chip bonded onto the first semiconductor chip in stacked relation; and
- a noise shield film provided between the first semiconductor chip and the second semiconductor chip for preventing the first and second semiconductor chips from being mutually influenced by noises thereof,
- a connection mechanism which connects the noise shield film to a power supply portion, and
- a lead frame,
- wherein the first semiconductor chip is greater in size than the second semiconductor chip, and the noise shield film is provided on a surface of at least the first semiconductor chip,
- wherein a major noise source is present in the second semiconductor chip,
- wherein the noise shield film includes a shield portion which covers an area in which the major noise source is present, and an extension portion extending outwardly from the shield portion on a surface of the first semiconductor chip and beyond an edge of the second semiconductor chip.
- wherein the connection mechanism includes a bonding wire which directly connects the noise shield film to a portion of the lead frame which has a supply potential or a ground potential.
13. (Twice Amended) A semiconductor device comprising:
- a first semiconductor chip;
- a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;

a heat conductive member provided between the first semiconductor chip and the second semiconductor chip to define a heat release path for releasing heat generated by the second semiconductor chip; and

a connection member thermally connecting the heat conductive member to a heat radiator, the heat radiator including a heat sink wherein the connection member includes a bonding wire which directly connects the heat conductive member to the heat sink.

15. (Twice Amended) A semiconductor device comprising:

a first semiconductor chip;

a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;

a heat conductive member provided between the first semiconductor chip and the second semiconductor chip to define a heat release path for releasing heat generated by the second semiconductor chip; and

a connection member thermally connecting the heat conductive member to a heat radiator, wherein the heat conductive member includes a first metal film provided on a surface of at least one of the first semiconductor chip and a second metal film provided on the surface of the second semiconductor chip, the first metal film and the second metal film are either in direct contact with each other or directly bonded to each other,

wherein a major heat source is present in the second semiconductor chip,

wherein the first semiconductor chip is greater in size than the second semiconductor chip,

wherein the metal film has an extension portion which extends from the vicinity of the major heat source to a surface portion of the first semiconductor chip not covered with the second semiconductor chip, and the extension portion of the metal film is thermally connected to the heat radiator via the connection member and extends beyond an edge of the second semiconductor chip.

16. (Twice Amended) A semiconductor device comprising:
- a first semiconductor chip;
 - a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;
 - a heat conductive member provided between the first semiconductor chip and the second semiconductor chip to define a heat release path for releasing heat generated by the second semiconductor chip; and
 - a connection member thermally connecting the heat conductive member to a heat radiator,
- wherein the heat conductive member includes a first metal film provided on a surface of the first semiconductor chip and a second metal film provided on a surface of the second semiconductor chip, and the first metal film and the second metal film either are disposed in direct contact with each other or are directly bonded to each other,
- wherein the first metal film is thermally connected to the heat radiator via the connection member.

22. (Twice Amended) A semiconductor device comprising:
- a first semiconductor chip;
 - a second semiconductor chip bonded onto the first semiconductor chip in stacked relation; and
- wherein the first semiconductor chip is greater in size than the second semiconductor chip, and the first semiconductor chip includes a first metal film provided on a surface of at least the first semiconductor chip, the second semiconductor chip includes a second metal film provided on a surface thereof and the first metal film and the second metal film are either in direct contact with each other or directly bonded to each other,
- wherein a major noise source is present in the second semiconductor chip,
- wherein the metal film includes a shield portion which covers an area in which the major noise source is present, and an extension portion extending outwardly

from the shield portion on a surface of the first semiconductor chip and beyond an edge of the second semiconductor chip

wherein the metal film is provided in a region which covers the major noise source within the second semiconductor chip.

23. (Twice Amended) A semiconductor device comprising:

a first semiconductor chip;

a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;

a metal film provided between the first semiconductor chip and the second semiconductor chip; and

a connection member thermally connecting the metal film to a heat radiator including a heat sink; and,

~~wherein the connection member includes a bonding wire which connects directly bonded to the connection member and connecting the metal film to the heat sink and,~~

wherein the metal film provides a heat release path for releasing heat from a major heat source within the second semiconductor chip.

24. (Twice Amended) A semiconductor device comprising:

a first semiconductor chip;

a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;

a metal film provided between the first semiconductor chip and the second semiconductor chip, the metal film being provided on a surface of at least one of the first semiconductor chip and the second semiconductor chip; and

a connection member thermally connecting the metal film to a heat radiator; and

~~a bonding wire directly bonded to the connection member and connecting the metal film to the heat radiator,~~

wherein the first semiconductor chip is greater in size than the second semiconductor chip,

wherein the metal film has an extension portion which extends to a surface portion of the first semiconductor chip not covered with the second semiconductor chip, and the extension portion of the metal film extends beyond an edge of the second semiconductor chip,

wherein the metal film is provided in a region which covers a major noise source within the second semiconductor chip, and also provides a heat release path for releasing heat from the major heat source within the second semiconductor chip.

25. (Twice Amended) A semiconductor device comprising:

a first semiconductor chip;

a second semiconductor chip bonded onto the first semiconductor chip in stacked relation;

a metal film provided between the first semiconductor chip and the second semiconductor chip to define a heat release path for releasing heat generated by the second semiconductor chip;

a connection member thermally connecting the metal film to a heat radiator; and

an electrode portion,

wherein the metal film includes a first metal film portion provided on a surface of the first semiconductor chip and a second metal film portion provided on a surface of the second semiconductor chip, and the first metal film portion and the second metal film portion are disposed in direct contact with each other or directly bonded to each other,

wherein the first metal film portion is thermally connected to the heat radiator via the connection member and,

wherein the electrode portion is provided between the first semiconductor chip and the second semiconductor chip for electrical connection between the first and second semiconductor chips,

wherein the metal film is composed of the same metal material as the electrode portion.